



ORELL

PRESSURE FILTERS PL



MATERIALS

Head:
Cast iron

Bowl:
Steel

Bypass valve:
Steel

Seals:
NBR Nitrile
(FKM - on request fluoroelastomer)

Indicator housing:
Brass

PRESSURE (ISO 10771-1:2002)

Max working:
31,5 MPa (315 bar)

Test:
47 MPa (470 bar)

Bursting:
95 MPa (950 bar)

Collapse, differential
for the filter element (ISO 2941):
series standard: 2 MPa (20 bar)
series H+: 21 MPa (210 bar)

BYPASS VALVE

Setting:
600 kPa (6 bar) \pm 10%

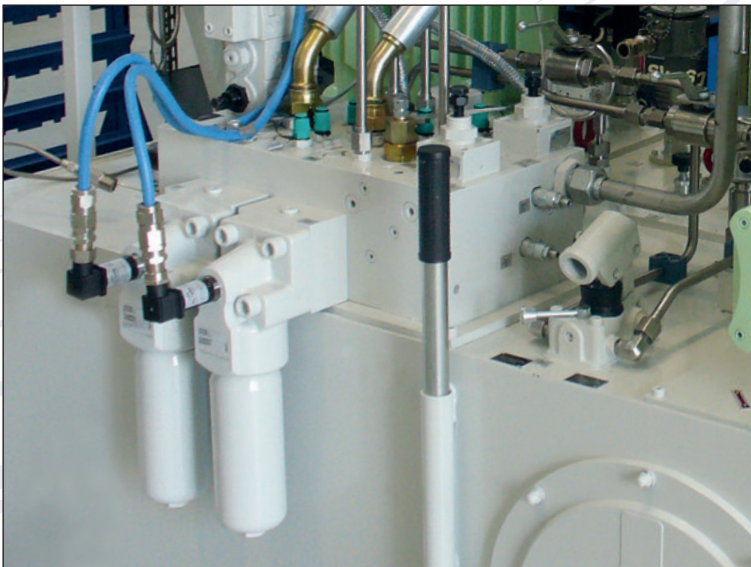
WORKING TEMPERATURE

From -25° to +110° C

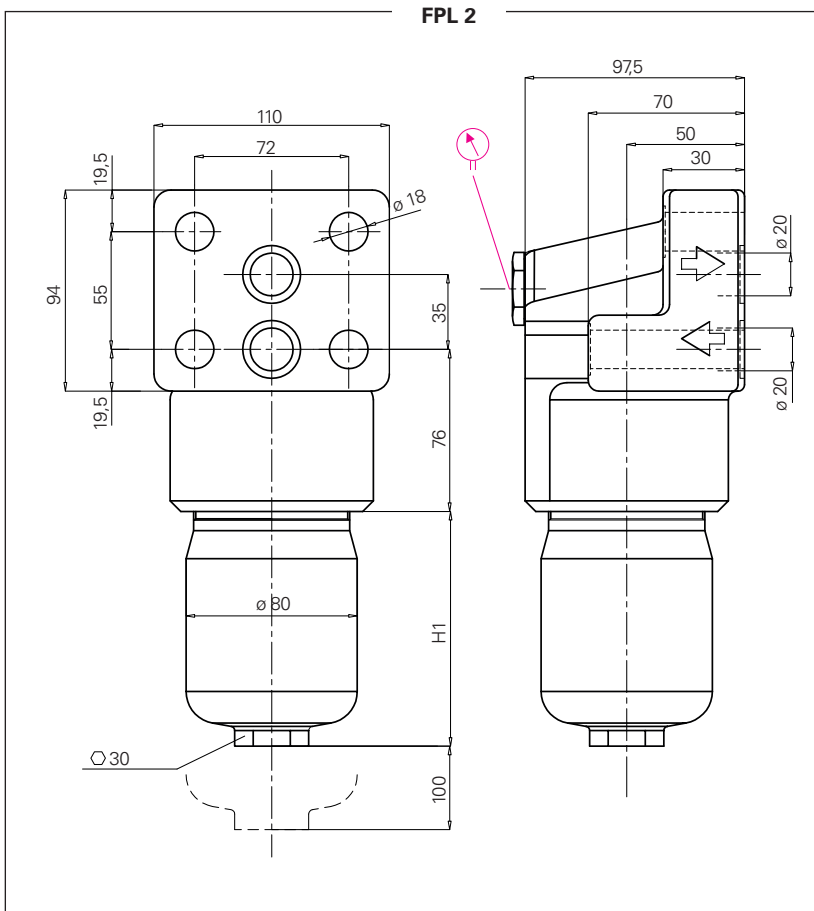
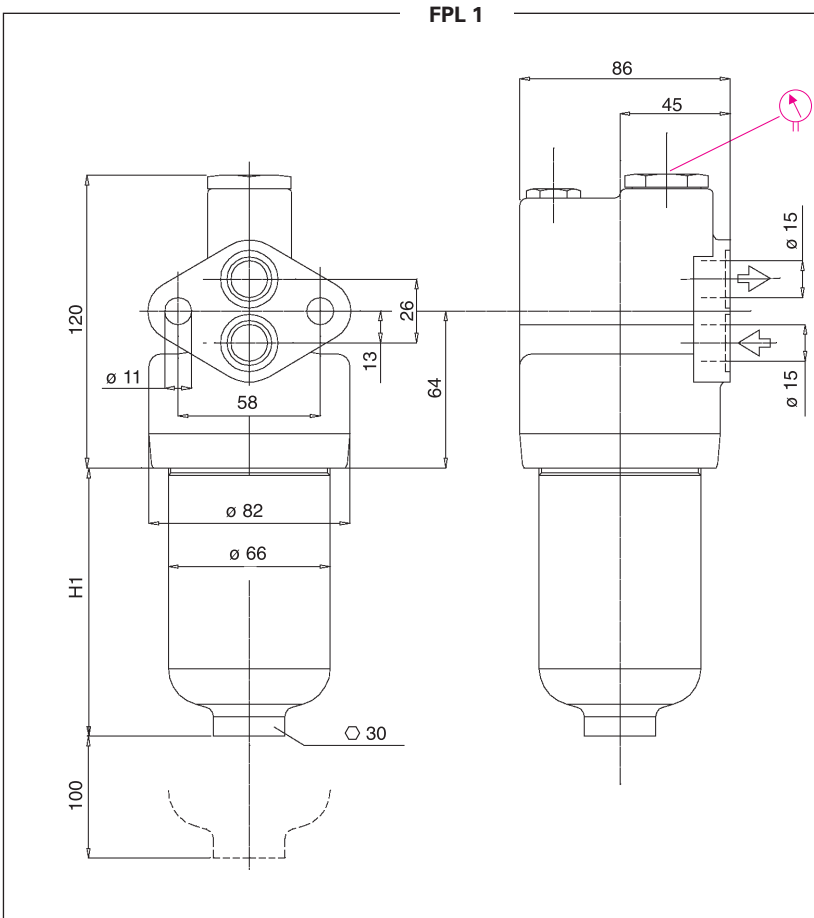
COMPATIBILITY (ISO 2943:1999)

Full with fluids: HH-HL-HM-HV-HTG
(according to ISO 6743/4)
For fluids different than the above
mentioned, please contact our Sales
Department.

APPLICATION EXAMPLE



OHF 370

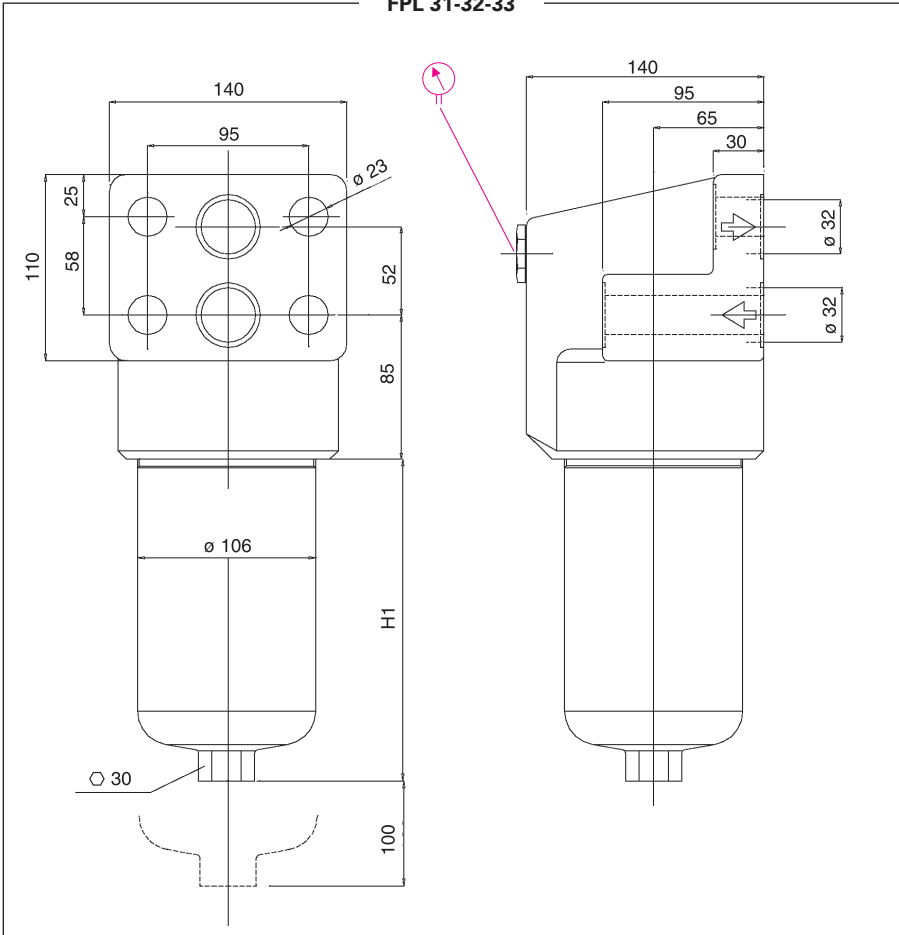


FILTER HOUSING		
	H1	kg
FPL11	79	4,4
FPL12	109	4,6
FPL13	209	5,2
FPL21	116	6,6
FPL22	207	8,2

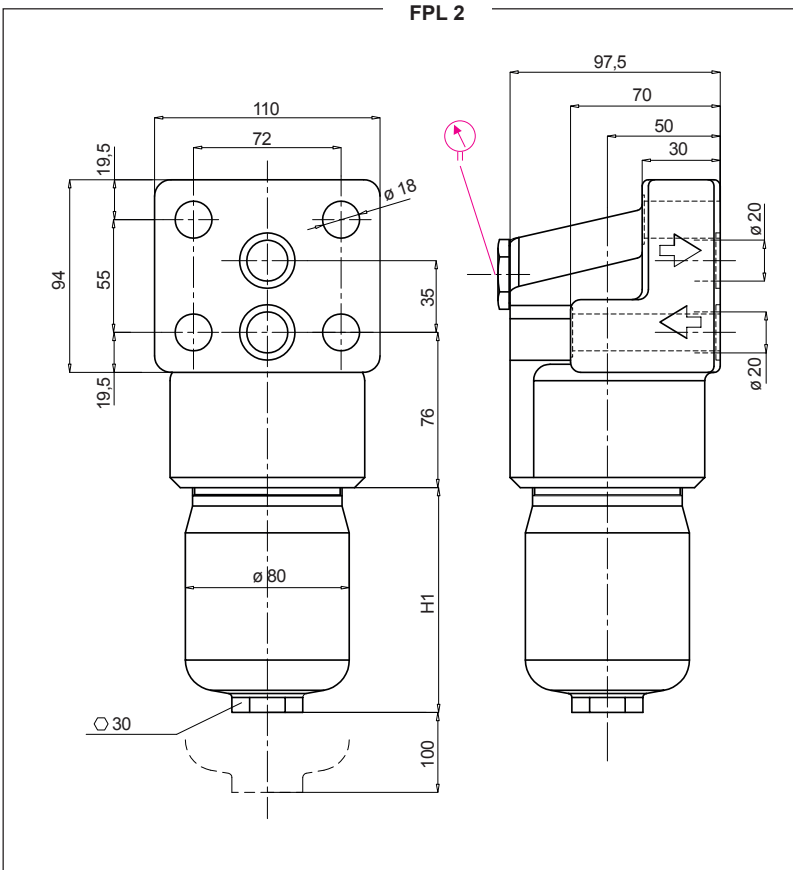
		TYPE									
		F = FILTER COMPLETE	F	F	F	F	F				
		B = FILTER HOUSING	B	B	B	B	B	ELEMENT	E		
P	L	FAMILY SIZE & LENGTH					FAMILY SIZE & LENGTH		P	B	
			11	12	13	21	22				
		C PORT TYPE									
		C = flanged 90° (manifold)	C	C	C	C	C				
		PORT SIZE									
		15 = size 15	15	15	15	-	-				
		20 = size 20	-	-	-	20	20				
		BYPASS VALVE									
		W = without	W	W	W	W	W				
		C = 600 kPa (6 bar)	C	C	C	C	C				
		SEALS					SEALS				
		N = NBR Nitrile	N	N	N	N	N	N = NBR			
		F = FKM Fluoroelastomer	F	F	F	F	F	F = FKM			
		FILTER MEDIA					FILTER MEDIA				
		FA = fiber 5 μm _(e) β>1.000 Δp 2 MPa (20 bar)	FA	FA	FA	FA	FA	FA = fib. 5 μm _(e) 20 bar			
		FB = fiber 7 μm _(e) β>1.000 Δp 2 MPa (20 bar)	FB	FB	FB	FB	FB	FB = fib. 7 μm _(e) 20 bar			
		FC = fiber 12 μm _(e) β>1.000 Δp 2 MPa (20 bar)	FC	FC	FC	FC	FC	FC = fib. 12 μm _(e) 20 bar			
		FD = fiber 21 μm _(e) β>1.000 Δp 2 MPa (20 bar)	FD	FD	FD	FD	FD	FD = fib. 21 μm _(e) 20 bar			
		HA = fiber 5 μm _(e) β>1.000 Δp 21 MPa (210 bar)	HA	HA	HA	HA	HA	HA = fib. 5 μm _(e) 210 bar			
		HB = fiber 7 μm _(e) β>1.000 Δp 21 MPa (210 bar)	HB	HB	HB	HB	HB	HB = fib. 7 μm _(e) 210 bar			
		HC = fiber 12 μm _(e) β>1.000 Δp 21 MPa (210 bar)	HC	HC	HC	HC	HC	HC = fib. 12 μm _(e) 210 bar			
		HD = fiber 21 μm _(e) β>1.000 Δp 21 MPa (210 bar)	HD	HD	HD	HD	HD	HD = fib. 21 μm _(e) 210 bar			
		CC = cellulose 10 μm β>2 Δp 2 MPa (20 bar)	CC	CC	CC	CC	CC	CC=cel.10 μm 20 bar			
		CLOGGING INDICATOR									
		03 = port, plugged	03	03	03	03	03	When the filter is ordered with FKM seals, the first digit of the indicator code is a letter (please see page 182 - 183).			
		5E = visual differential 500 kPa (5 bar)	5E	5E	5E	5E	5E				
		5F = visual differential 800 kPa (8 bar)	5F	5F	5F	5F	5F				
		6E = electrical differential 500 kPa (5 bar)	6E	6E	6E	6E	6E				
		6F = electrical differential 800 kPa (8 bar)	6F	6F	6F	6F	6F				
		7E = indicator 6E with LED	7E	7E	7E	7E	7E				
		7F = indicator 6F with LED	7F	7F	7F	7F	7F				
		T2 = elect. diff. 500 kPa (5 bar) with thermostat 30°C	T2	T2	T2	T2	T2				
		T3 = elect. diff. 800 kPa (8 bar) with thermostat 30°C	T3	T3	T3	T3	T3				
		ACCESSORIES					N.B. Indicator series 72 & 73 only on request				
X X		XX = no accessory available	XX	XX	XX	XX	XX				

FILTER ELEMENT									
	A	B	C	kg media F+ & C+	kg media H+	Area (cm ²)			
						Media F+	Media H+	Media C+	
EPB11	45	25	85	0,15	0,25	355	340	310	
EPB12	45	25	116	0,20	0,55	500	475	435	
EPB13	45	25	211	0,30	0,45	935	915	815	
EPB21	52	23,5	115	0,25	0,40	975	975	780	
EPB22	52	23,5	210	0,35	0,55	1.830	1.785	1.465	

FPL 31-32-33



FPL 2

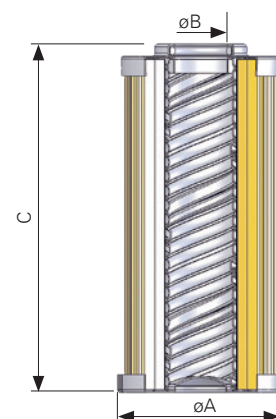


FILTER HOUSING		
	H1	kg
FPL31	107	11,0
FPL32	199	13,9
FPL33	319	17,2
FPL34	420	22,0
FPL35	520	25,0

		TYPE						
		F	F	F	F	F		
		B	B	B	B	B	ELEMENT	E
P	L	FAMILY SIZE & LENGTH					FAMILY SIZE & LENGTH	
		31	32	33	34	35	P	B
		C PORT TYPE						
		C	C	C	C	C		
3	2	PORT SIZE						
		32	32	32	32	32		
		W = without						
		W	W	W	W	W		
		C = 600 kPa (6 bar)						
		C	C	C	C	C		
		SEALS					SEALS	
		N	N	N	N	N	N = NBR	
		F	F	F	F	F	F = FKM	
		FILTER MEDIA					FILTER MEDIA	
		FA	FA	FA	FA	FA	FA = fib. 5µm _(e) 20 bar	
		FB	FB	FB	FB	FB	FB = fib. 7µm _(e) 20 bar	
		FC	FC	FC	FC	FC	FC = fib. 12µm _(e) 20 bar	
		FD	FD	FD	FD	FD	FD = fib. 21µm _(e) 20 bar	
		HA	HA	HA	HA	HA	HA = fib. 5µm _(e) 210 bar	
		HB	HB	HB	HB	HB	HB = fib. 7µm _(e) 210 bar	
		HC	HC	HC	HC	HC	HC = fib. 12µm _(e) 210 bar	
		HD	HD	HD	HD	HD	HD = fib. 21µm _(e) 210 bar	
		CC	CC	CC	CC	CC	CC = cel. 10µm 20 bar	
		CLOGGING INDICATOR						
		03	03	03	03	03	When the filter is ordered with FKM seals, the first digit of the indicator code is a letter (please see page 182 - 183).	
		5E	5E	5E	5E	5E		
		5F	5F	5F	5F	5F		
		6E	6E	6E	6E	6E		
		6F	6F	6F	6F	6F		
		7E	7E	7E	7E	7E		
		7F	7F	7F	7F	7F		
		T2	T2	T2	T2	T2		
		T3	T3	T3	T3	T3		
X	X	ACCESSORIES						
		XX	XX	XX	XX	XX	N.B. Indicator series 72 & 73 only on request	

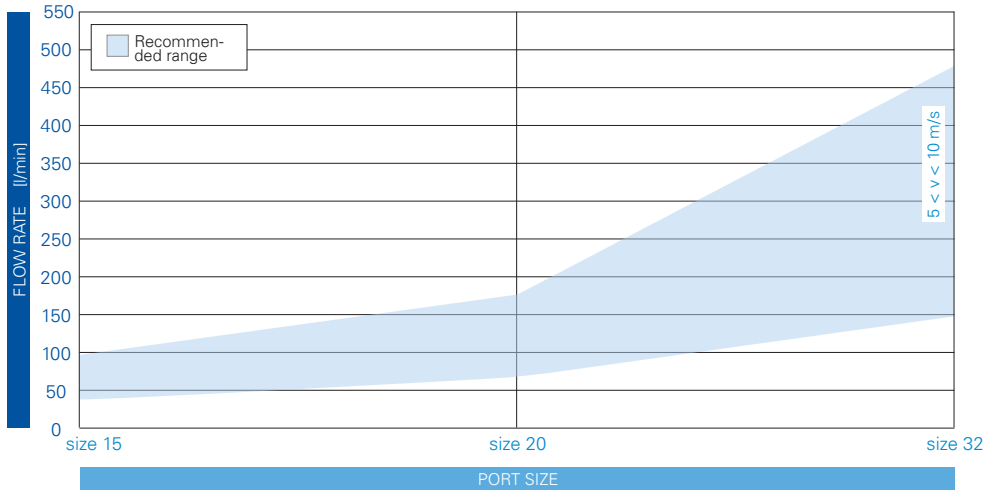
FILTER ELEMENT

	A	B	C	kg media F+&C+	kg media H+	Area (cm ²)		
						Media F+	Media H+	Media C+
EPB31	78	42,5	118	0,40	0,70	2.000	1.470	1.720
EPB32	78	42,5	210	0,80	1,30	3.695	2.695	3.170
EPB33	78	42,5	210	1,00	1,60	5.025	4.325	4.025
EPB34	78	42,5	430	1,20	1,80	6.585	5.685	6.585
EPB35	78	42,5	530	1,40	2,00	8.145	7.045	8.645



FLUID SPEED

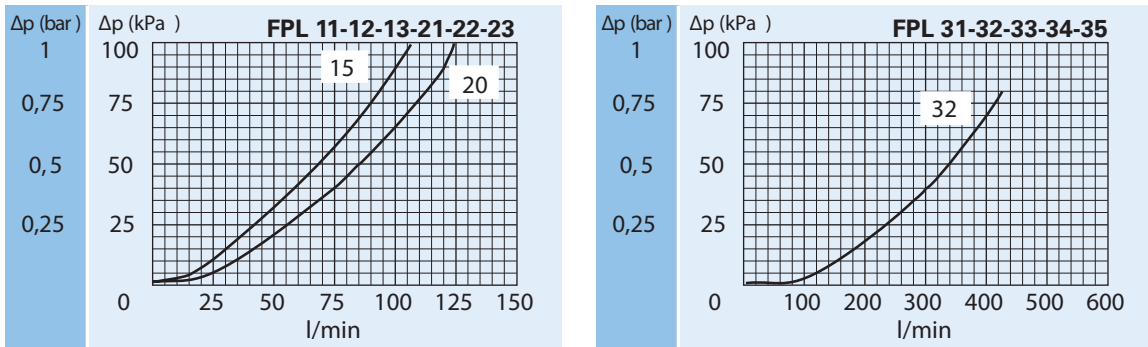
when selecting the filter size, we suggest to consider also the max recommended fluid speed (in pressure lines normally $5 < v < 10$ m/s)



PRESSURE DROP CURVES (Δp)

The "Assembly Pressure Drop (Δp)" is obtained by adding the pressure drop values of the Filter Housing and of the Clean Filter Element corresponding to the considered Flow Rate and it must be lower than 120 kPa (1,2 bar).

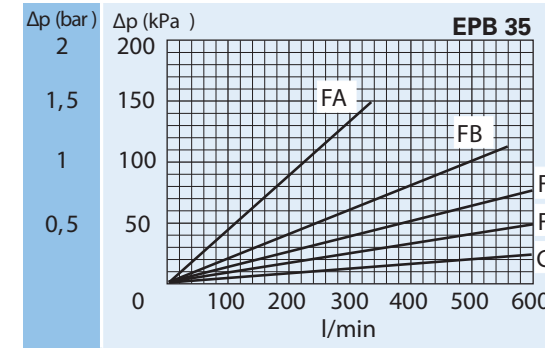
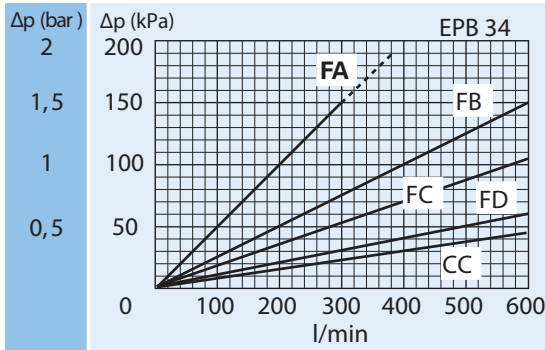
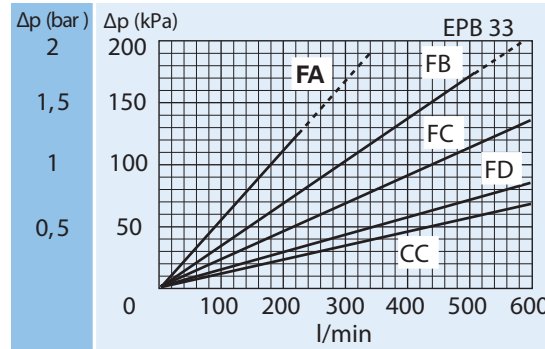
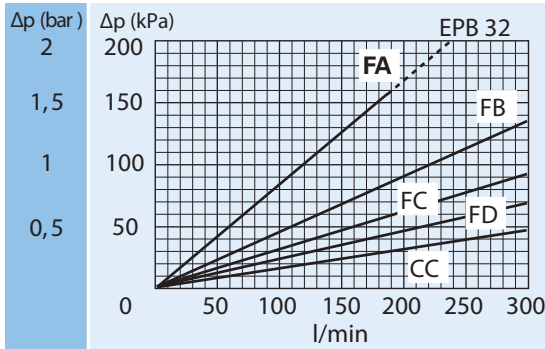
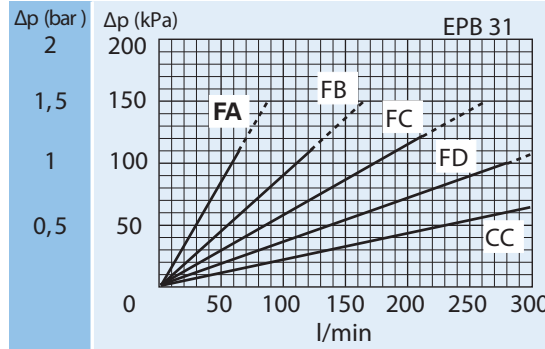
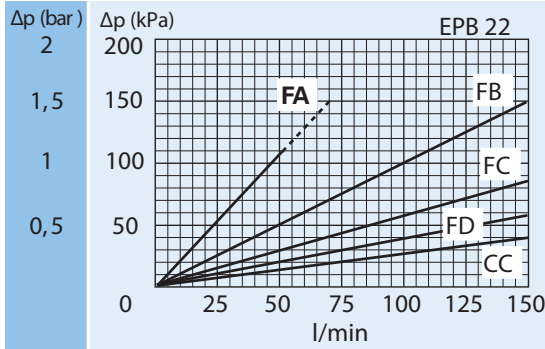
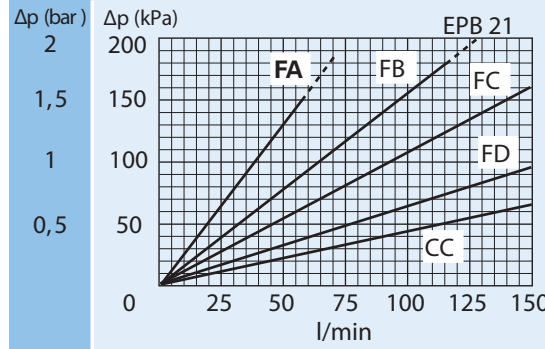
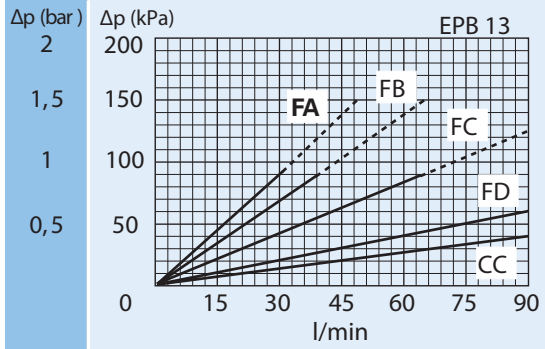
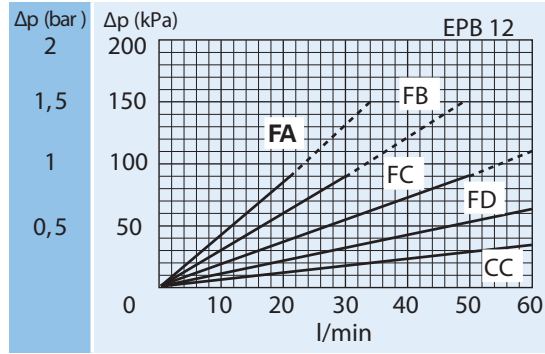
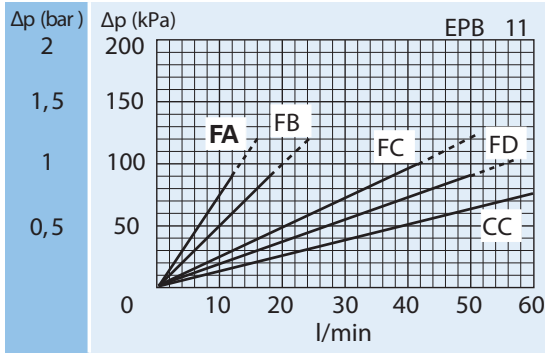
FILTER HOUSING PRESSURE DROP
(mainly depending on the port size)



N.B. All the curves have been obtained with mineral oil having a kinematic viscosity 30 cSt and specific gravity 0,9 kg/dm³; for fluids with different features, please consider the factors described in the first part of this catalogue.

**CLEAN FILTER ELEMENT PRESSURE DROP
WITH F+ AND C+ MEDIA**

(depending both on the internal diameter of the element and on the filter media)



N.B. All the curves have been obtained with mineral oil having a kinematic viscosity 30 cSt and specific gravity 0,9 kg/dm³; for fluids with different features, please consider the factors described in the first part of this catalogue.

PRESSURE DROP CURVES (Δp)

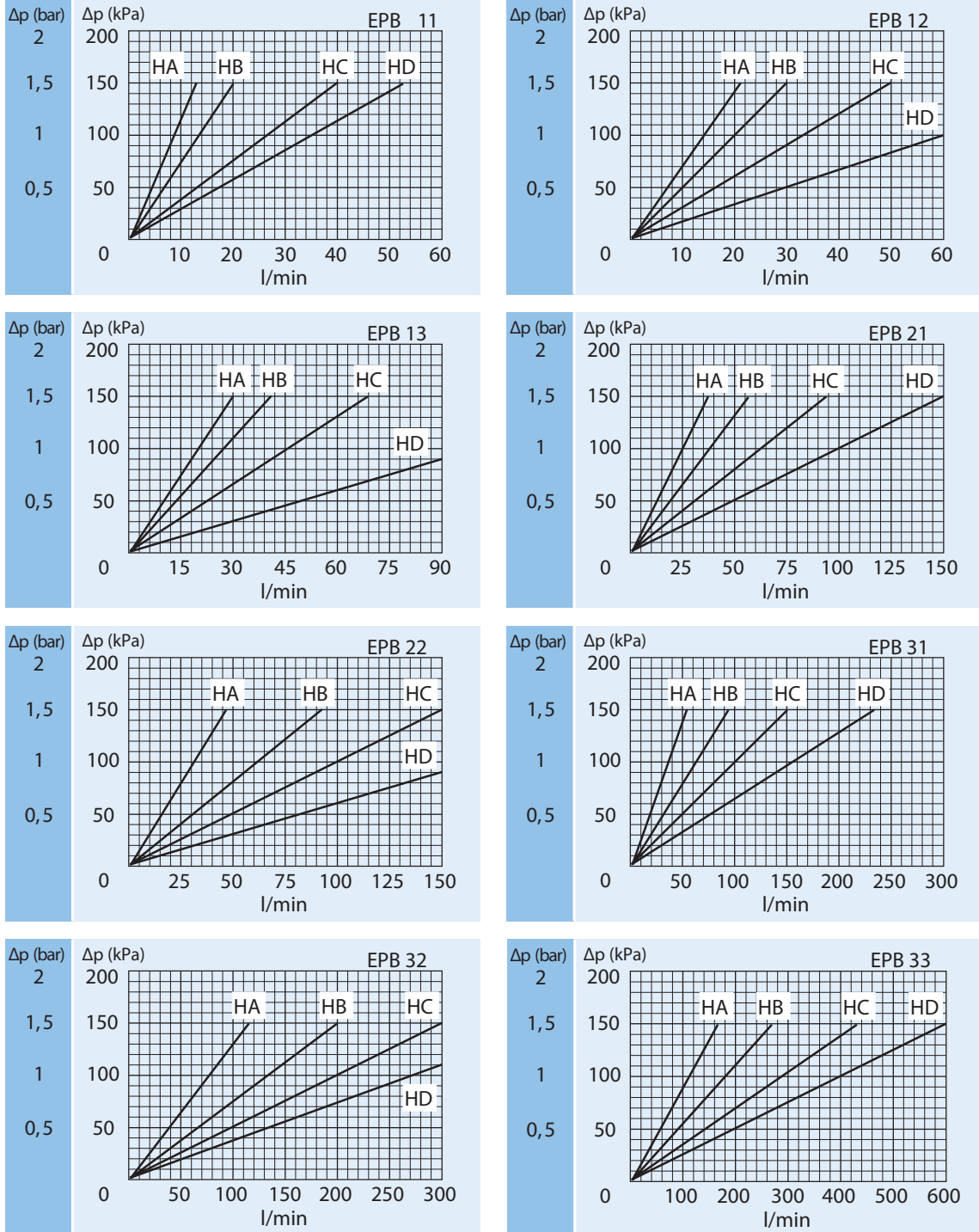
The "Assembly Pressure Drop (Δp)" is obtained by adding the pressure drop values of the Filter Housing and of the Clean Filter Element corresponding to the considered Flow Rate and it must be lower than 120 kPa (1,2 bar).

CLEAN FILTER ELEMENT PRESSURE DROP

(depending both on the internal diameter of the element and on the filter media)

WITH H+ MEDIA

(recommended with no Bypass option)



N.B. All the curves have been obtained with mineral oil having a kinematic viscosity 30 cSt and specific gravity 0,9 kg/dm³; for fluids with different features, please consider the factors described in the first part of this catalogue.

PRESSURE DROP CURVES (Δp)

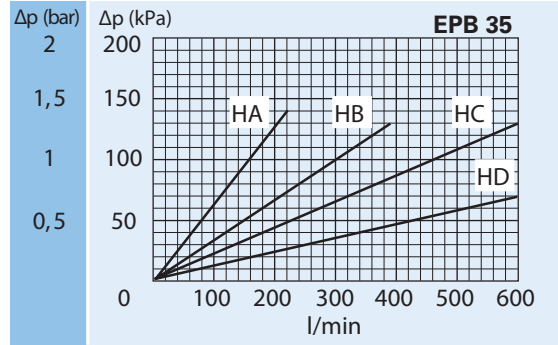
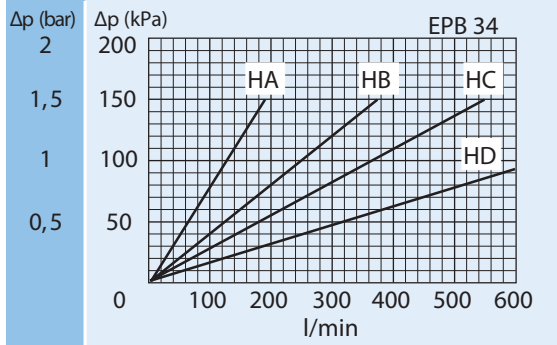
The "Assembly Pressure Drop (Δp)" is obtained by adding the pressure drop values of the Filter Housing and of the Clean Filter Element corresponding to the considered Flow Rate and it must be lower than 120 kPa (1,2 bar).

CLEAN FILTER ELEMENT PRESSURE DROP

(depending both on the internal diameter of the element and on the filter media)

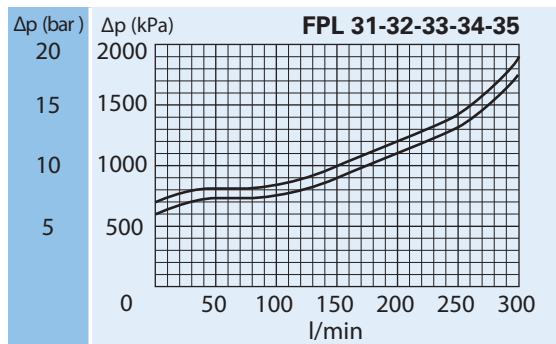
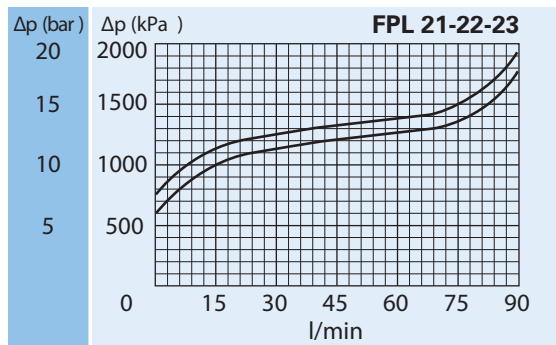
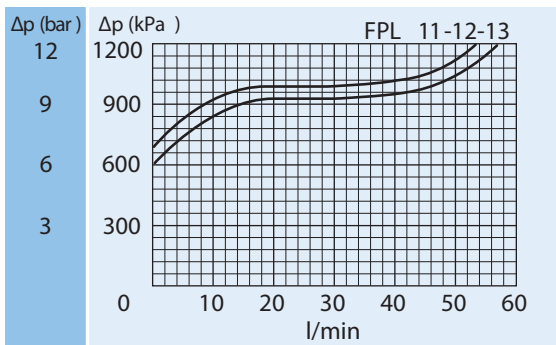
WITH H+ MEDIA

(recommended with no Bypass option)



BYPASS VALVE PRESSURE DROP

When selecting the filter size, these curves must be taken into account if it is foreseen that any flow peak is to be absorbed by the bypass valve, it also must be of proper configuration to avoid pressure peaks. The valve pressure drop is directly proportional to fluid specific gravity.



N.B. All the curves have been obtained with mineral oil having a kinematic viscosity 30 cSt and specific gravity 0,9 kg/dm³; for fluids with different features, please consider the factors described in the first part of this catalogue.

CLOGGING INDICATOR

A visual or visual-electrical differential indicator is available as an option and allows monitoring of the element conditions, giving an exact indication of the right time to replace the element.

FILTER HOUSING

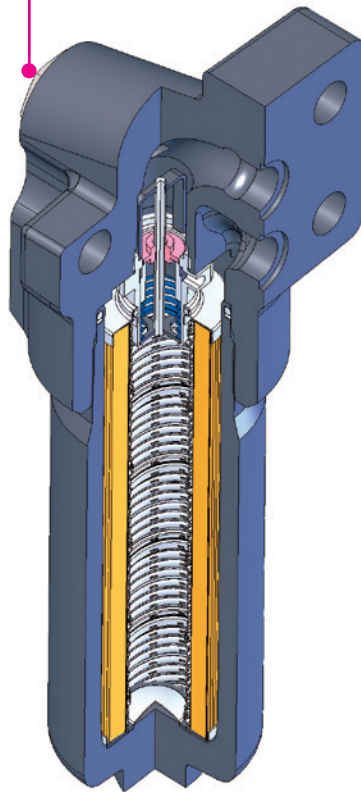
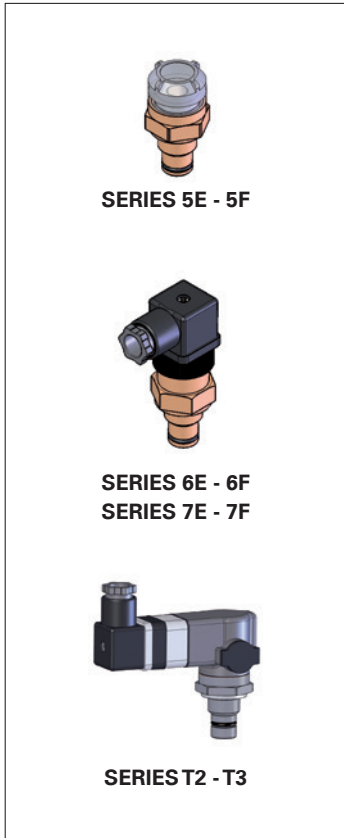
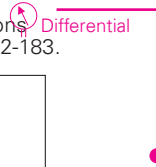
The head by high performance cast iron and the bowl by extruded steel ensure the best fatigue resistance to the working pressures.

FILTER ELEMENT

The filter element is manufactured with filter medias selected in our laboratory and mechanically supported to maintain the highest performances even at high differential pressures.

CLOGGING INDICATOR

For further technical informations **Differential** and other options see page 182-183.



SEAL GUARANTEED

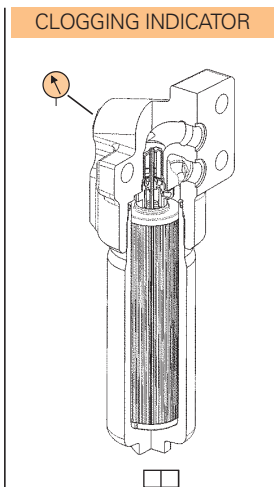
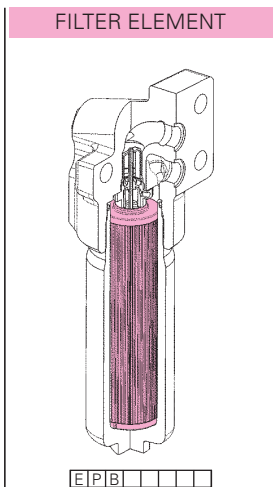
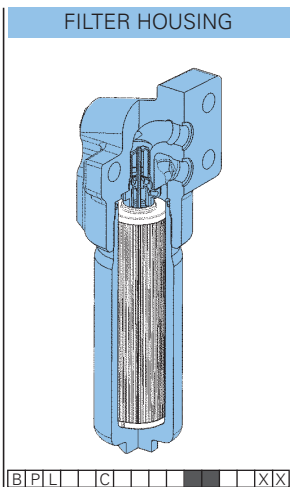
A perfect O-ring seal is always ensured as it is not dependent on the tightening torque applied to the bowl.

EASY ASSEMBLING

The manifold mounting is compact and leak free.

SPARE SEAL KIT

	NBR	FKM
FPL11	521.0080.2	521.0083.2
FPL12	521.0080.2	521.0083.2
FPL13	521.0080.2	521.0083.2
FPL21	521.0081.2	521.0084.2
FPL22	521.0081.2	521.0084.2
FPL31	521.0082.2	521.0085.2
FPL32	521.0082.2	521.0085.2
FPL33	521.0082.2	521.0085.2
FPL34	521.0082.2	521.0085.2
FPL35	521.0082.2	521.0085.2



SPARE PARTS ELEMENTS
(For filling up see table "Ordering and option chart")